

Title (en)  
PROTON CONDUCTOR

Title (de)  
PROTONENLEITER

Title (fr)  
CONDUCTEUR DE PROTONS

Publication  
**EP 1793389 B1 20091125 (EN)**

Application  
**EP 05765216 A 20050704**

Priority  
• JP 2005012311 W 20050704  
• JP 2004246557 A 20040826

Abstract (en)  
[origin: EP1793389A1] The present invention provides a proton conductor, which can be used as a electrolyte of fuel cells and the like, and is a compatibilized material made of an ionic liquid and a polymer. The present invention is a proton conductor consisting of a compatibilized material made of a salt of Brönsted base and Brönsted acid, wherein said salt has at least one heteroatom accompanied with protons, and a polymer, wherein said polymer is produced by copolymerizing a vinyl compound, a divinyl compound and a maleimide compound and said maleimide compound is represented by the chemical formula 1 below: wherein R 1 is a hydrogen atom, an alkyl group which may contain a substituent, an aryl group or an aralkyl group.

IPC 8 full level  
**H01B 1/06** (2006.01); **C08F 222/40** (2006.01); **H01M 8/02** (2006.01); **H01M 8/10** (2006.01)

CPC (source: EP US)  
**C08F 222/40** (2013.01 - EP US); **H01B 1/122** (2013.01 - EP US); **H01M 8/1023** (2013.01 - EP US); **H01M 8/1072** (2013.01 - EP US); **C08F 212/08** (2013.01 - EP US); **C08F 212/36** (2013.01 - EP US); **H01M 2300/0082** (2013.01 - EP US); **H01M 2300/0091** (2013.01 - EP US); **Y02E 60/50** (2013.01 - EP); **Y02P 70/50** (2015.11 - EP US)

Cited by  
DE102014009675A1; DE102009009357A1; DE102009009357B4; US8802265B2

Designated contracting state (EPC)  
DE

DOCDB simple family (publication)  
**EP 1793389 A1 20070606; EP 1793389 A4 20081105; EP 1793389 B1 20091125**; DE 602005017913 D1 20100107;  
JP 2007179745 A 20070712; JP 4967127 B2 20120704; JP WO2006022081 A1 20080731; US 2009220839 A1 20090903;  
WO 2006022081 A1 20060302

DOCDB simple family (application)  
**EP 05765216 A 20050704**; DE 602005017913 T 20050704; JP 2004246557 A 20040826; JP 2005012311 W 20050704;  
JP 2006531328 A 20050704; US 66130405 A 20050704